

## **REMARKS**

### **Introduction**

This paper is in response to the Office Action mailed December 18, 2003 [hereinafter "Office Action"].

The Office Action rejected Claims 1-7 and 10-23.

In the Office Action, claims 8 and 9 are indicated as allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 8 has been amended accordingly. Claim 9 depends from claim 8.

Applicant amends claims 1, 8, 10, 11, 14, and 17 herein. In the amendments, markings show all current changes relative to the prior version. In the amendments underlines indicate additions while double brackets and strike-throughs indicate deletions. No new matter has been added in the claim amendments. The amendments are supported by the original disclosure.

Claims 24-32 are added herein. No new matter has been added in the new claims. The new claims are supported by the original disclosure.

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Claims 1-32 are presently pending in this application.

Applicant presents the following arguments in support of Claims 1-7 and 10-23.

Applicants respectfully request reconsideration of claims 1-7 and 10-23, withdrawal of the rejections under 35 U.S.C. § 102 (b), and allowance of claims 1-32.

### **Rejection of Claims under 35 U.S.C. § 102**

Claims 1-4, 6, 7, 10, 11, 16-18, 20, and 23 stand rejected under 35 U.S.C. § 102(e) providing:

A person shall be entitled to a patent unless--

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States

Applicant notes that: "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1997)

*Cox '097*

Claims 1-4, 6, 7, 10, 11, 16-18, 20, and 23 are rejected under 35 U.S.C. 102(b) in view of Cox, US Patent No. 5,890,097, Apparatus For Waveform Disturbance Monitoring For An Electric Power System (hereinafter "Cox").

Applicant respectfully traverses the rejection. Applicant respectfully submits that Cox does not provide the combination of Applicant's invention as presented by Applicant in claims 1-4, 6, 7, 10, 11, 16-18, 20, and 23.

With respect to amended independent claims 1, 11 and 17, Applicant provides for a first mode of sequential sampling of each of a plurality of lines and a second mode of discontinuing sequential sampling of the plurality of lines and increasing the sampling of a particular line of the plurality of lines to detect high speed transients, and controlling the sampling to return to sequential sampling of each of the plurality of lines when no high speed transients are detected.

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In contrast Cox provides: "Regardless of the sampling rate, on each interrupt, the A/D converter 13 samples and digitizes all five sensed currents and all three sensed phase voltages." [Cox, Column 3, lines 24-28] Thus Cox does not anticipate the increased sampling of a particular line in the manner provided by Applicant in amended independent claims 1, 11, and 17.

Applicant respectfully submits that Cox does not provide the combination of Applicant's invention as presented in Applicant's amended claims 1, 11, and 17.

Applicant repeats the arguments in support of claim 1, 11, and 17 with respect to their respective dependant claims and asserts that these dependant claims are patentable as further limitations of amended independent claims 1, 11, and 17 and intervening claims.

With respect to amended method claims 10, Applicant provides for Connections to dedicated analog-to-digital converters in an array and controlling the sampling rate of the analog-to-digital converters to increase the sampling rate of at least

one of the analog-to-digital converters in the array to capture high-speed transients.

In contrast Cox provides: "Regardless of the sampling rate, on each interrupt, the A/D converter 13 samples and digitizes all five sensed currents and all three sensed phase voltages." [Cox, Column 3, lines 24-28] Thus Cox does not anticipate varying the sampling rate between analog-to-digital converters and respective lines of the power distribution system. In Cox, it appears that currents and voltages are sampled at the same rate.

Applicant respectfully submits that Cox does not provide the combination of Applicant's invention as presented in Applicant's amended claim 10.

With respect to claim 16, the Office Action cites Cox at column 4, lines 1-4. However, Applicant further provides for an interrupt device for selectively halting power flow in the power distribution system if a problem is indicated. Applicant has amended claim 16 for clarification [Specification, paragraph [0065]] In contrast, the portion of Cox cited in the Office Action at column 4, lines 1-4 appears to provide for only an interrupt related to the testing of the system. In Cox, testing occurs "at intervals determined by interrupts generated by the digital processor." [Cox, column 3, lines 11-14]

Accordingly, Applicant respectfully requests reconsideration of the claims rejected under 102(b), withdrawal of the rejections under 35 U.S.C. § 102 (b), and allowance of claims 1-4, 6, 7, 10, 11, 16-18, 20, and 23.

#### **Rejection Of Claims Under 35 U.S.C. § 103(a)**

With respect to the rejection of claims under 35 U.S.C. §103(a):

"Patent examiners carry the responsibility of making sure that the standard of patentability enunciated by the Supreme Court and by the Congress is applied in each and every case." MPEP § 2141 (emphasis in original).

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success.

Finally, the prior art reference (or references when combined) must teach or suggest all of the claim limitations.

MPEP § 2143.

Claims 5 and 19 were rejected under 35 U.S.C. §103(a) as being unpatentable over Cox in view of Stifter (US 4,368,499)

Claims 12, 13, 21, and 22 were rejected under 35 U.S.C. §103(a) as being unpatentable over Cox in view of Hasenkopf et al. (US 4,694,415)

Claims 14 and 15 are rejected under 35 U.S.C. §103(a) as being unpatentable over Cox in view of Hescht et al. (US 5,212,437)

Applicant respectfully traverses the rejections under 35 U.S.C. § 103(a).

*Cox in view of Stifter*

With respect to the rejection of claims 5 and 19, Applicants submit that the rejection under 35 U.S.C. § 103(a) is improper because there is no suggestion or motivation to modify the teachings of *Cox* or *Stifter*, or to combine the teachings of *Cox* and *Stifter*, nor is there any indication of a reasonable expectation of success, nor do the prior art references, when combined, teach or suggest all of the claim limitations.

Claim 5 depends from amended claim 1, and claim 19 depends from amended claim 17. Applicant repeats the statements with respect to the rejection of amended independent claims 1 and 17 under 35 USC 102(b), here with respect to rejection of Claims 5 and 19 under 35 U.S.C. § 103 over Cox in view of Stifter. Further, Cox does not teach the limitation of interrupting a flow of power on the power distribution system if analysis of the stored data indicates a danger according to pre-defined parameters as claimed in claim 5, nor a means for interrupting a flow of power on the power distribution system as claimed in claim 19.

If the Examiner maintains that there is motivation to modify or combine the teachings of *Cox* and *Stifter*, Applicants respectfully request that the Examiner furnish a basis for the stated motivation. MPEP 2144.03; In re Lee, 277 F.3d 1338, 1343-44 (Fed.

Cir. 2002). Applicants respectfully submit that the rejection of Claims 5 and 19 under 35 U.S.C. § 103(a) over *Cox* in view of *Stifter* is improper.

Accordingly, Applicant respectfully requests that the rejection of Claims 5 and 19 under 35 U.S.C. §103(a) be withdrawn and the claims allowed.

*Cox in view of Hasenkopf*

With respect to the rejection of claims 12, 13, 21, and 22, Applicants submit that the rejection under 35 U.S.C. § 103(a) over *Cox* in view of *Hasenkopf* is improper because there is no suggestion or motivation to modify the teachings of *Cox* or *Hasenkopf*, or to combine the teachings of *Cox* and *Hasenkopf* nor is there any indication of a reasonable expectation of success, nor do the prior art references, when combined, teach or suggest all of the claim limitations.

Claims 12 and 13 depend from amended claim 11, and claims 21 and 22 depend from amended claim 17 and intervening claims. Applicant repeats the statements with respect to the rejection of amended independent claims 11 and 17 under 35 USC 102(b), here with respect to rejection of Claims 12, 13, 21, and 22 under 35 U.S.C. § 103 over *Cox* in view of *Hasenkopf*. Further, *Cox* does not teach a multiplexor for multiplexing the monitoring signals to the analog-to-digital converter as claimed in claim 12; nor does *Cox* teach a processor controlling the multiplexor as provided in claims 12 and 13, nor a means for multiplexing as in claims 21, nor providing multiplexing signals as claimed in claim 22. *Hasenkopf* appears directed to a digital filter for eliminating noise signals, but does not appear related to power line monitoring.

If the Examiner maintains that there is motivation to modify or combine the teachings of *Cox* and *Hasenkopf*, Applicants respectfully request that the Examiner furnish a basis for the stated motivation. MPEP 2144.03; *In re Lee*, 277 F.3d 1338, 1343-44 (Fed. Cir. 2002). Applicants respectfully submit that the rejection of Claims 12, 13, 21, and 22 under 35 U.S.C. § 103(a) over *Cox* in view of *Hasenkopf* is improper.

Accordingly, Applicant respectfully requests that the rejection of Claims 12, 13, 21, and 22 under 35 U.S.C. §103(a) be withdrawn and the claims allowed.

*Cox in view of Hescht*

With respect to the rejection of claims 14 and 15, Applicants submit that the rejection under 35 U.S.C. § 103(a) over *Cox* in view of *Hescht* is improper because there is no suggestion or motivation to modify the teachings of *Cox* or *Hescht*, or to combine the teachings of *Cox* and *Hescht* nor is there any indication of a reasonable expectation of success, nor do the prior art references, when combined, teach or suggest all of the claim limitations.

Applicant has amended claim 14 into independent form, claim 15 depends from claim 14. With respect to amended claim 14, Applicant provides for analog-to-digital converters in an array and controlling the sampling rate of the analog-to-digital converters to increase the sampling rate of at least one of the analog-to-digital converters in the array to capture high-speed transients.

In contrast *Cox* provides: "Regardless of the sampling rate, on each interrupt, the A/D converter 13 samples and digitizes all five sensed currents and all three sensed phase voltages." [*Cox*, Column 3, lines 24-28] Thus *Cox* does not anticipate varying the sampling-rate-between-analog-to-digital converters and respective lines of the power distribution system. In *Cox*, it appears that currents and voltages are sampled at the same rate.

Applicant respectfully submits that *Cox* does not explicitly or inherently provide the combination of Applicant's invention as presented in Applicant's amended claim 10. Further *Cox* does not provide for an array of analog-to-digital converters. *Hescht* appears related to an x-ray system but does not appear related to power line monitoring.

If the Examiner maintains that there is motivation to modify or combine the teachings of *Cox* and *Hescht*, Applicants respectfully request that the Examiner furnish a basis for the stated motivation. MPEP 2144.03; *In re Lee*, 277 F.3d 1338, 1343-44 (Fed. Cir. 2002). Applicants respectfully submit that the rejection of Claims 5 and 19 under 35 U.S.C. § 103(a) over *Cox* in view of *Hescht* is improper.

Applicant repeats its arguments in support of amended claim 14 with respect to claim 15 and asserts that claim 15 is allowable as a further limitation of claim 14.

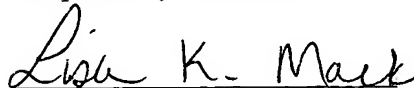
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Accordingly, Applicant respectfully requests that the rejection of Claims 14 and 15 under 35 U.S.C. §103(a) be withdrawn and the claims allowed.

**Conclusion**

Applicant believes that all objections and rejections have been overcome and respectfully requests that a timely Notice of Allowance be issued in view of the amendments and discussion. If the Examiner has any further questions or concerns, the Examiner is invited to contact the Applicant's undersigned attorney.

Respectfully submitted,



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